


**Detailed Specifications &
Technical Data**



7883A Paired - DataTwist® Category 6

	<p>For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Color Code Chart : No. 8 for DataTwist Cables (Modified Western Electric).pdf</p>
---	--

Description:

4 Pair UTP, 250MHz Category 6, Vertical Tray Rated, 23 AWG Solid Bare Copper, Polyolefin Insulation, Slit-Film Filler, PVC Jacket, Sequential Marking at Two Foot Intervals

SUITABLE APPLICATIONS:

Suitable Applications	Premise Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM
-----------------------	--

PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

INSULATION:

Insulation Material	PO - Polyolefin
---------------------	-----------------

Pair Color Code Chart :

Number	Color	Number	Color
1	White/Blue Stripe and Blue	3	White/Green Stripe and Green
2	White/Orange Stripe and Orange	4	White/Brown Stripe and Brown

OVERALL CABLING:

Overall Cabling Fillers	Slit Film
-------------------------	-----------

OUTER SHIELD:

Outer Shield Material	Unshielded
-----------------------	------------

OUTER JACKET:

Outer Jacket Material	PVC - Polyvinyl Chloride
Outer Jacket Ripcord	Yes

**Detailed Specifications &
Technical Data**



7883A Paired - DataTwist® Category 6

OVERALL NOMINAL DIAMETER:

Overall Nominal Diameter	.205 in.
--------------------------	----------

MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	27.5 lbs/1000 ft.
Max. Recommended Pulling Tension	40 lbs.
Min. Bend Radius (Install)	0.5 in.

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

NEC/(UL) Specification	CM
CEC/C(UL) Specification	CM
TIA/EIA Specification	ANSI/TIA/EIA-568-B.2-1 Cat 6 Patch
Other Specification	UL Verified to Category 6

FLAME TEST:

UL Flame Test	UL1581 Vertical Tray
CSA Flame Test	FT1

PLENUM/NON-PLENUM:

Plenum (Y/N)	N
--------------	---

ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	330 pF/100 m
Nominal Velocity of Propagation	70 %
Maximum Delay (ns/100 m)	537 @ 100MHz ns/100 m
Maximum Delay Skew (ns/100m)	45 ns/100 m
Maximum Conductor DC Resistance @ 20 Deg. C	9.38 Ohms/100 m
Maximum DCR Unbalance @ 20 Deg. C	5 %
Max. Operating Voltage - UL	300 V RMS

ELECTRICAL CHARACTERISTICS - PREMISE:

Premise Cable Electricals Table 1 :	
-------------------------------------	--

**Detailed Specifications &
Technical Data**



7883A Paired - DataTwist® Category 6

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min. Return Loss (dB)	Min. Structural Return Loss (dB)
1	2.4	74.3	72.3	71.9	69.9	20.0	na
4	4.5	65.3	63.3	60.7	58.7	23.0	na
8	6.4	60.8	58.8	54.4	52.4	24.5	na
10	7.1	59.3	57.3	52.2	50.2	25.0	na
16	9.1	56.2	54.3	47.2	45.2	25.0	na
20	10.2	54.8	52.8	44.6	42.6	25.0	na
25	11.4	53.3	51.3	41.9	39.9	24.3	na
31.25	12.8	51.9	49.9	39.1	37.1	23.6	na
62.5	18.5	47.4	45.4	28.9	26.9	21.5	na
100	23.8	44.3	42.3	20.5	18.5	20.1	na
155	30.2	41.5	39.5	11.3	9.3	18.8	na
200	34.8	39.8	37.8	5.0	3.0	18.0	na
250	39.4	38.3	36.3			17.3	na

Premise Cable Electricals Table 2 :

Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 15	100 ± 15	67.8	64.8
4	100 ± 15	100 ± 15	55.8	52.7
8	100 ± 15	100 ± 15	49.7	46.7
10	100 ± 15	100 ± 15	47.8	44.8
16	100 ± 15	100 ± 15	43.7	40.7
20	100 ± 15	100 ± 15	41.8	38.7
25	100 ± 15	100 ± 15	39.8	36.8
31.25	100 ± 15	100 ± 15	37.9	34.9
62.5	100 ± 15	100 ± 15	31.9	28.8
100	100 ± 15	100 ± 15	27.8	24.8
155	100 ± 22	100 ± 15	23.9	20.9
200	100 ± 22	100 ± 15	21.8	18.7
250	100 ± 32	100 ± 15	19.8	16.8

NOTES:

Notes

RJ-45 compatible for either 568 A & B configurations

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
7883A 0021000	4 PR #24 PP PVC	1000	24	RED	C
7883A 0031000	4 PR #24 PP PVC	1000	24	ORANGE	C
7883A 0041000	4 PR #24 PP PVC	1000	24	YELLOW	C
7883A 0051000	4 PR #24 PP PVC	1000	24	GREEN, DARK	C

**Detailed Specifications &
Technical Data**



7883A Paired - DataTwist® Category 6

7883A 0061000	4 PR #24 PP PVC	1000	24	BLUE, LIGHT	C
7883A 0071000	4 PR #24 PP PVC	1000	24	VIOLET	C
7883A 0091000	4 PR #24 PP PVC	1000	24	WHITE	C
7883A 0101000	4 PR #24 PP PVC	1000	24	BLACK	C
7883A F2V1000	4 PR #24 PP PVC	1000	24	GRAY, DEC	C

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 07-22-2004

© 2003 Belden Wire & Cable Company
All Rights Reserved.

Although Belden Electronics Division ("Belden") makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein. All sales of Belden products are subject to Belden's standard terms and conditions of sale.